Benchmarks Review Grid

Use the grid below to determine the degree to which the benchmarks recommended in the National Mathematics Advisory Panel are currently addressed in the standards, mathematics curriculum, and assessments used to measure progress toward mastery. In columns 2, 3, and 4 note the specific standard, chapters in curriculum materials and/or units in a scope and sequence, and key points of assessment, including name of assessment and number of items. Remember that benchmarks are points of mastery so that the grade represented is an endpoint of proficiency that may be developed (and therefore represented in standards, curriculum, assessment) over several years.

Benchmarks	Representation in Standards	Topic Coverage in Core Curriculum	Assessment for Mastery
Fluency with Whole Numbers			
By the end of Grade 3, students should be proficient in the addition and subtraction of whole numbers.			
By the end of Grade 5, students should be proficient with multiplication and division of whole numbers.			
Fluency with Fractions			
By the end of Grade 4, students should be able to identify and represent fractions and decimals, and compare them on a number line or with other common representations of fractions and decimals.			
By the end of Grade 5, students should be proficient with comparing fractions and decimals and common percents, and with the addition and subtraction of fractions and decimals.			

Benchmarks	Representation in Standards	Topic Coverage in Core Curriculum	Assessment for Mastery
By the end of Grade 6, students should be proficient in multiplication and division of fractions and decimals.			
By the end of Grade 6, students should be proficient with all operations involving positive and negative integers.			
By the end of Grade 7, students should be proficient with all operations involving positive and negative fractions.			
By the end of Grade 7, students should be able to solve problems involving percent, ratio, and rate and extend this work to proportionality.			
Geometry and Measurement			
By the end of Grade 5, students should be able to solve problem involving perimeter and area of triangles and all quadrilaterals having at least one pair of parallel sides (i.e., trapezoids).			

Benchmarks	Representation in Standards	Topic Coverage in Core Curriculum	Assessment for Mastery
By the end of Grade 6, students should be able to analyze the properties of two-dimensional shapes and solve problems involving perimeter and area, and analyze the properties of three-dimensional shapes and solve problems involving surface area and volume.			
By the end of grade 7, students should be familiar with the relationship between similar triangles and the concept of the slope of a line.			